

**EXHIBIT 46**

**REDACTED**

**MAO DECLARATION  
OPPOSITION TO SUMMARY  
JUDGMENT**



# Increase user engagement with Firebase & Google Analytics

 Firebase BD  
PSL  
Firebase Solutions Consultant

July 2020

Confidential + Proprietary

Speaker: Justyna

**PURPOSE OF THIS DECK**

Internal Only

Deliver a broad pitch on how Firebase Engagement Products can help AdMob publishers with key goals:

- Grow total revenue (IAP + ads + subscriptions)
- Decrease churn
- Increase user engagement
  - More stable apps
  - Personalized user experience
  - Context specific communication

**TARGET AUDIENCE**

AdMob publishers

- Who have already integrated GAFK SDK to consider additional value-adding Firebase SDKs
- Who have rejected GAFK SDK to provide more reasons to consider Firebase

**QUESTIONS ABOUT THIS PITCH?**

Please email [firebaseconsultants@google.com](mailto:firebaseconsultants@google.com)

 Confidential + Proprietary

Speaker: Justyna / Amy / Alp

### FIREBASE OFFICE HOURS

Firestore Office Hours is time dedicated for publishers interested in using Firestore product(s) to connect with Firestore product experts. Office Hour meetings should serve as critical conversion points, after which customers are able to either decide adoption of Firestore or fully implement Firestore product(s) of their choice.

Office Hours are scheduled at set times each week:

- **Tuesday 8:30-11am U.S. Pacific Time**  
*This time translates to the following EMEA friendly times:  
Tuesday 4:30-7pm in London / Dublin*
- **Thursday 4-7pm U.S. Pacific Time**  
*This time translates to the following APAC friendly times:  
Friday 8am - 11am in Singapore / Shanghai  
Friday 9am - 12pm in Seoul / Tokyo*


Office Hours are not introductory meetings for customers unfamiliar with the platform. We ask that customers with no to little baseline knowledge invest in exploring external resources first before requesting time with Firestore product experts.

**Internal Only**

### MEETING REQUIREMENTS

To ensure Firestore Office Hours are productive and effective for all parties involved, we've outlined clear selection criteria, meeting preparation and expectations.

- All meetings **30 mins each**
- Technical agenda and a **list of specific questions** required prior to scheduling meeting
  - *(Firestore platform consists of 19 products so we need to secure the right SMEs)*
- **Account/relationship owners required to join customer calls** with the Firestore team
- Meetings not confirmed until **Firestore BD confirms staffing**


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Speaker: Justyna

**Internal Only**

**SUPPORT AVAILABLE FOR ALL FIREBASE PRODUCTS - Americas**

- Presales, implementation, and troubleshooting support by Firebase Consultants and ATS
- Partner eligibility:
  - T1 Americas - Firebase Solutions Consultants (firebaseconsultants@google.com)

**Firebase Consultants**

Google Analytics for Firebase

Remote Config

Predictions

A/B Testing

Cloud Messaging\*

\* Support is limited to receiving messages on Android, iOS, and Unity / sending messages from Firebase console.

**These products below only offer support via [REDACTED]**

Authentication

Cloud Storage

Performance Monitoring

Cloud Functions

Hosting

Test Lab

Cloud Firestore

Realtime Database

App Distribution

ML Kit

Extensions

Dynamic Links

In-App Messaging

Crashlytics

To learn more about Firebase products, visit [firebase.google.com/products](https://firebase.google.com/products)

Confidential + Proprietary


Speaker: Amy

I know this may be review for many of you, but T1 APAC will be supported by Firebase Consultants for any presales, implementation, and troubleshooting needs. The ATS team also supports any WATT partners and strategic top partners in SMBP - feel free to reach out via [go/atsrequest](mailto:go/atsrequest). They're great and cover the main products that our publishers use (Analytics, Remote Config, Predictions, A/B Testing, and Cloud Messaging), which we'll cover in today's training

For all the Firebase products (including the ones supported by ATS and the Firebase Consultants), the Firebase team has weekly office hours where the Firebase DevRel team can meet with external partners. Ideally, these sessions are used to discuss implementation or use cases about a specific Firebase product rather than a pitch of numerous products. Additionally, these are to be used for external partner meetings primarily rather than internal troubleshooting or technical issues.

Speaker: Justyna - OH

Id	Date	Text
1	11/09/2020 23:20:55	LGTM!
2	11/10/2020 17:50:25	TY! (Abbreviations galore here)
2	11/10/2020 18:02:41	LOL
1	11/11/2020 20:44:00	[REDACTED] google.com [REDACTED] google.com I think we should add In-App Messaging to Consultants' box as well. WDYT? _Reassigned to Justyna Bak_
1	11/11/2020 20:44:00	LGTM - TY!!

 Firebase

Confidential + Proprietary

**Internal Only**

**SUPPORT AVAILABLE FOR ALL FIREBASE PRODUCTS - EMEA**

- Presales, implementation, and troubleshooting support by Firebase Consultants and ATS
- Partner eligibility:
  - T1 EMEA - Firebase Solutions Consultants (firebaseconsultants@google.com)
  - TBD - gTech Support

**gTech and Firebase Consultants**

Google Analytics for Firebase

Remote Config

Predictions

A/B Testing

Cloud Messaging\*

\* Support is limited to receiving messages on Android, iOS, and Unity / sending messages from Firebase console.

**These products below only offer support via [REDACTED]**

EMEA friendly times: Tuesdays 4:30pm-7pm Dublin local time

Authentication

Cloud Storage

Performance Monitoring

Cloud Functions

Hosting

Test Lab

Cloud Firestore

Realtime Database

App Distribution Beta

ML Kit Beta

Extensions

Dynamic Links

In-App Messaging

Crashlytics

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Speaker: Justyna - OH

Id	Date	Text
2	05/15/2020 23:12:14	<div data-bbox="574 196 683 215" style="background-color: black; width: 67px; height: 9px;"></div> google.com Hi Jad! Do you know which partners are eligible for gtech firebase support in EMEA? No worries if not - just wanted to check! _Assigned to Jad Al Abdallah_

 Firebase

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**Internal Only**

**SUPPORT AVAILABLE FOR ALL FIREBASE PRODUCTS - APAC**

- Presales, implementation, and troubleshooting support by Firebase Consultants and ATS
- Partner eligibility:
  - T1 APAC - Firebase Solutions Consultants (firebaseconsultants@google.com)
  - WATT APAC, Selected Top App Pubs in SEA, IN, SMBP - ATS Support (go/atsrequest)

**ATS and Firebase Consultants**

Google Analytics for Firebase

Remote Config

Predictions

A/B Testing

Cloud Messaging\*

\* Support is limited to receiving messages on Android, iOS, and Unity / sending messages from Firebase console.

**These products below only offer support via [REDACTED]**  
**APAC friendly times: Fridays 8am - 11am Singapore local time**

Authentication

Cloud Storage

Performance Monitoring

Cloud Functions

Hosting

Test Lab

Cloud Firestore

Realtime Database

App Distribution Beta

ML Kit Beta

Extensions

Dynamic Links

In-App Messaging

Crashlytics

To learn more about Firebase products, visit [firebase.google.com/products](https://firebase.google.com/products)

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Speaker: Amy

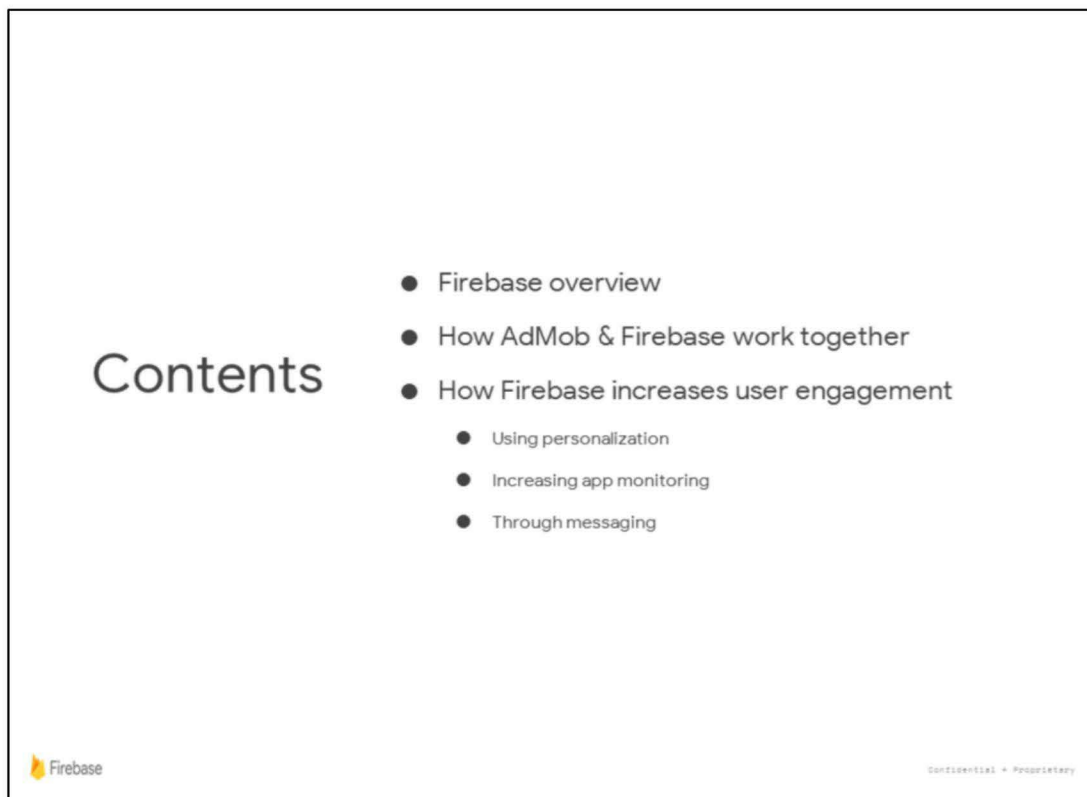
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technical issues.

Speaker: Justyna - OH

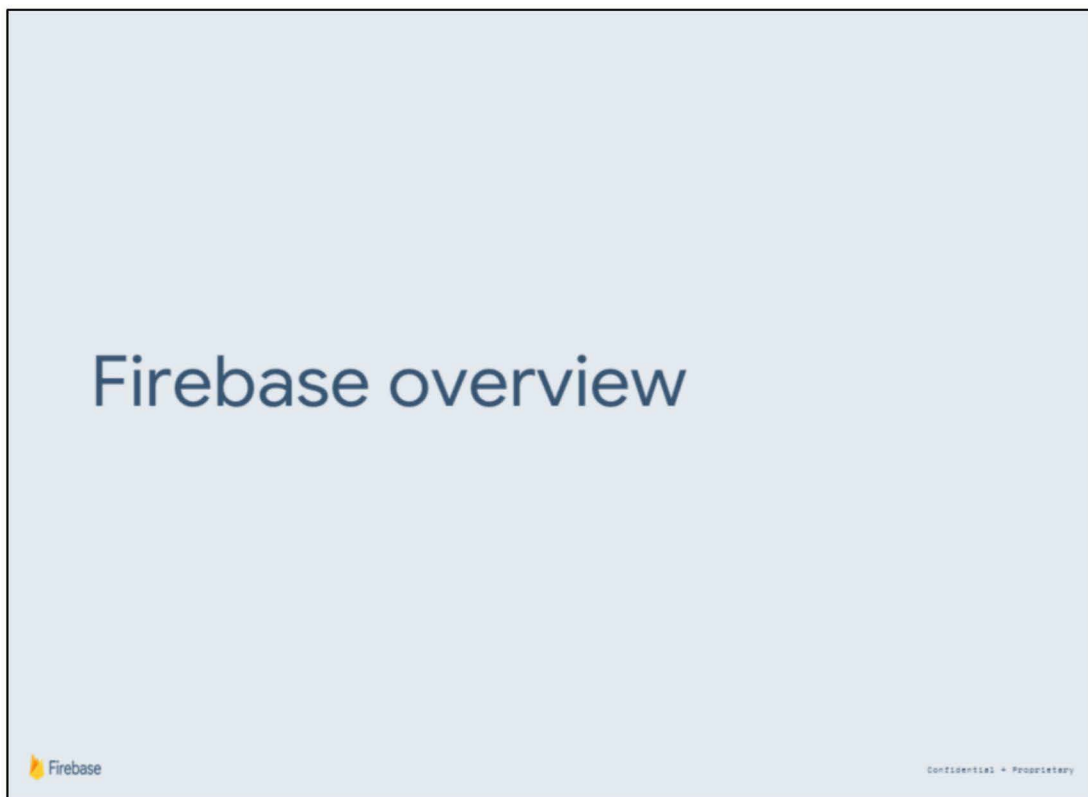


Speaker: Justyna

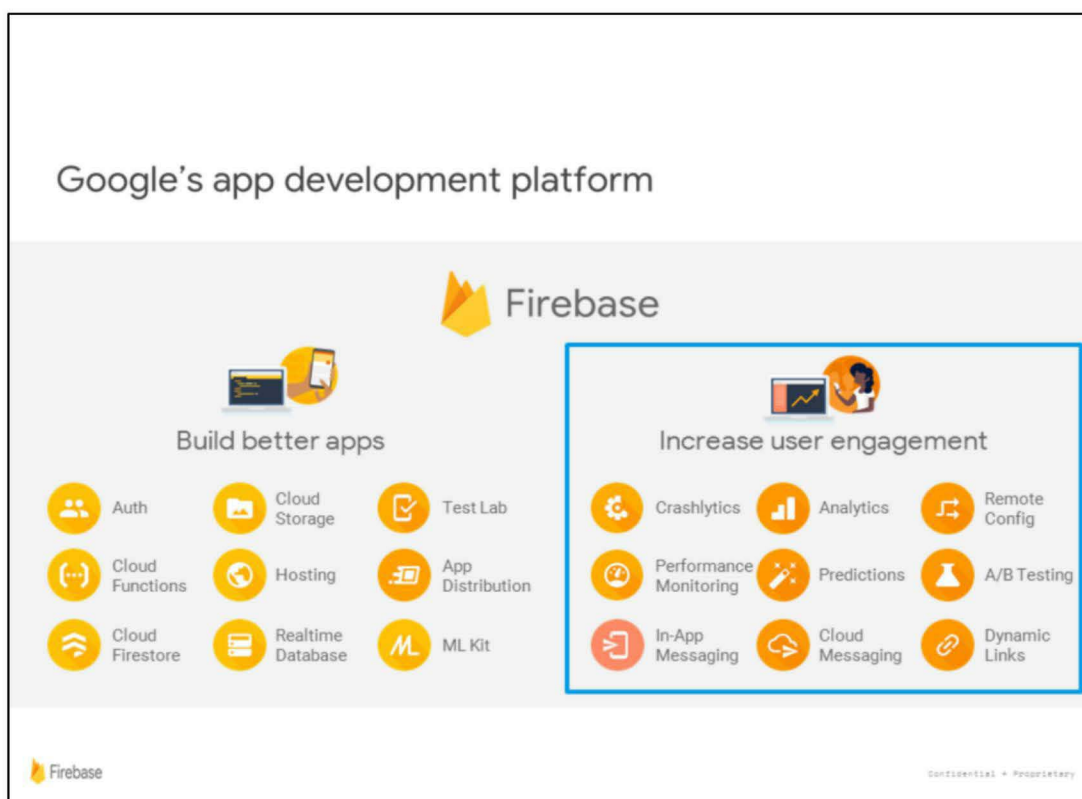
Id	Date	Text
3	05/18/2020 23:17:35	[REDACTED] google.com FYI We're also rolling out Ad Manager + Firebase linking later this year - it'll be focused on similar use cases as AdMob, but we might have to duplicate this pitch deck for those pubs as well.

 Firebase

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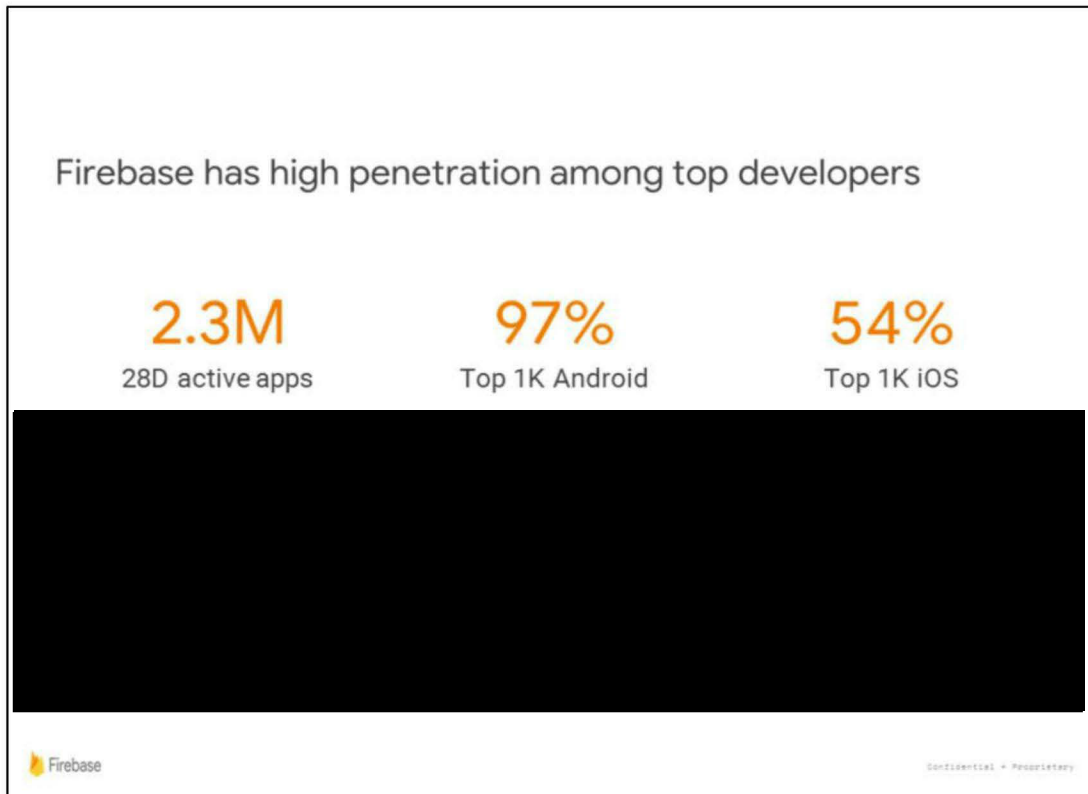
Speaker: Justyna



**Spaeker: Justyna**

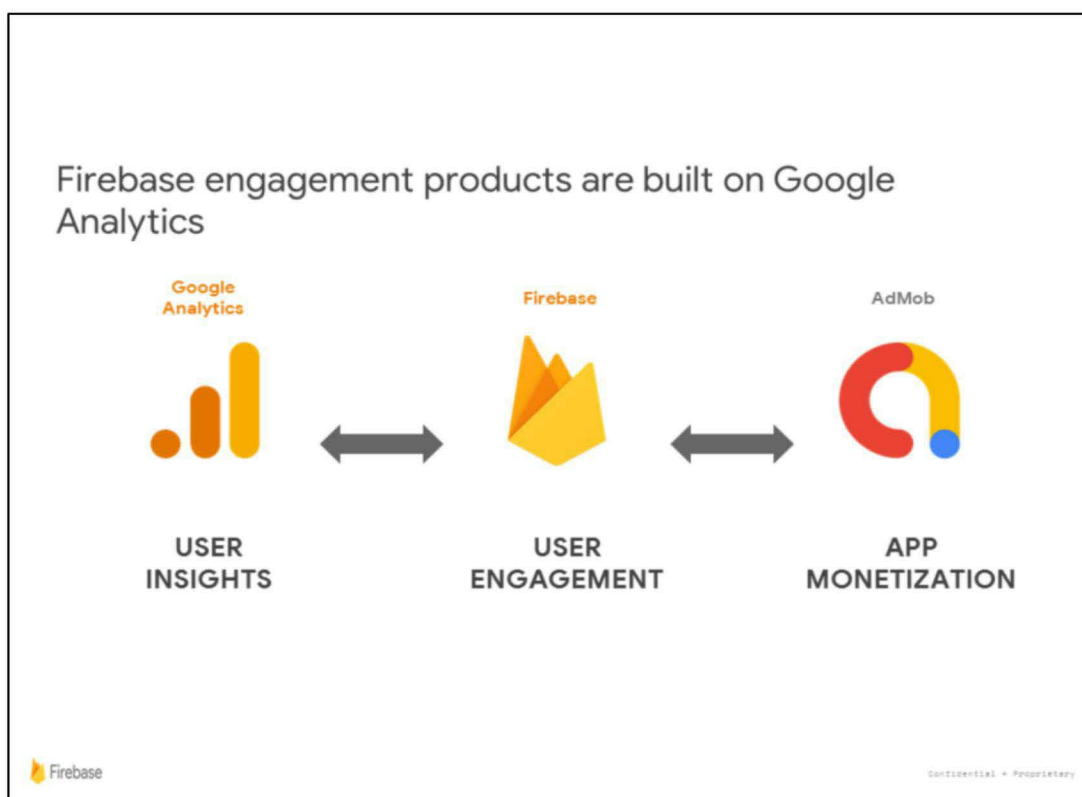
**Firestore provides a comprehensive set of tools and services for app developers (much more than just Analytics)**

**It aims to solve two key problems across the app lifecycle: Help developers build better apps, and increase user engagement**



**Spaeker: Justyna**

**We've seen steady and significant growth over the past years, with 2M+ active apps and significant adoption amongst top grossing apps**



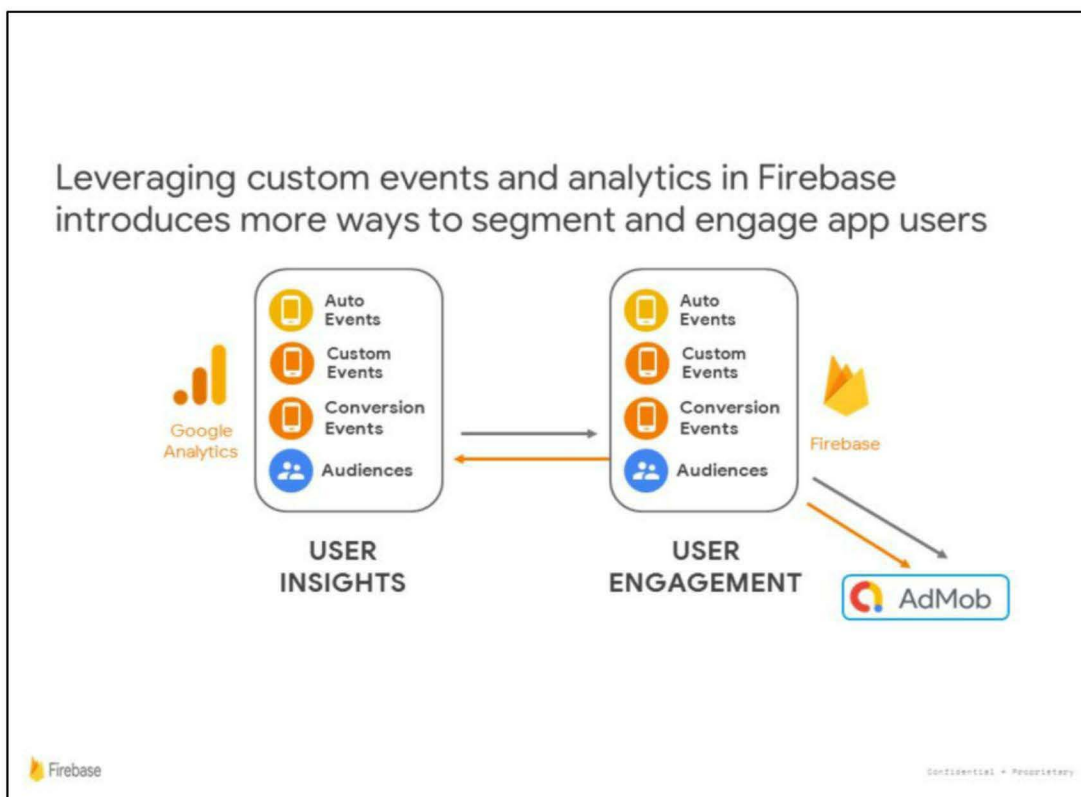
**Spaeker: Justyna**

**Google Analytics is at the heart of Firebase Engagement Products.**

**Google Analytics is a tool to help publishers better understand their users so they can take action and further personalize user experience.**

**GA4F SDK implemented on Android or iOS app records each action that user performs in the app such as: app install, log into the app, making an in app purchase or clicking on an ad inside the app as an event.**

**These events are then used by other Firebase products like e.g. Predictions to provide insight into user behavior and ideas on how to engage them even closer.**



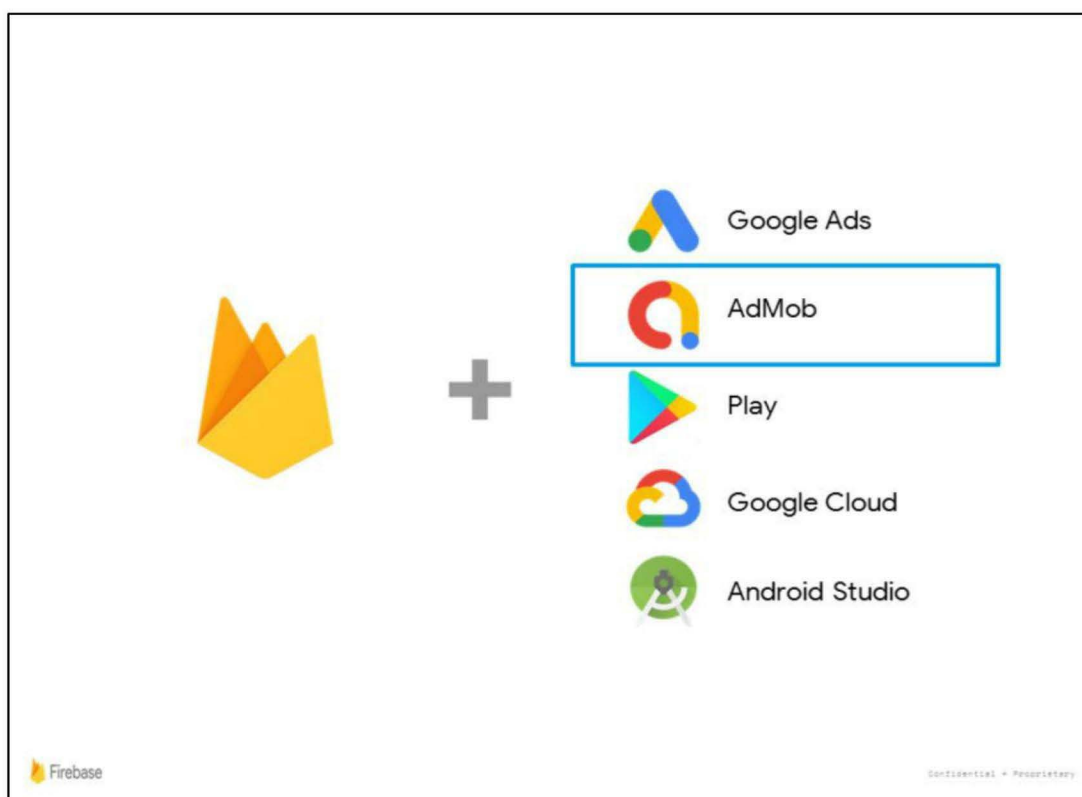
Speaker: Amy

Redundant w/ 12 (keep one or the other)

As Justyna mentioned, Firebase's event collection and tracking allows publishers to understand what's happening in their apps and then adjust the user experience, and ads personalization, according.

For example, an app developer can define custom events, such as passing a specific level in a game, and then segment users and apply additional monetization logic to that dynamic user group.

These events form the foundation for use of Firebase's other products that help drive user engagement.



Speaker: Justyna

Add in value prop (clarify)

Speaker notes:

Firebase collaborates with our peers across many big Google teams to bring the best app development experiences to developers.

For example:

... our backend tools run on Google Cloud to give you virtually infinite on-demand scalability

... we partner with AdMob to help you design optimal rewarded ads experience for your users so you can monetize your app without churn risk

... thanks to our partnership with Ads, you'll maximize the return on your ads spend.

Key concepts:

Firebase is an ideal gateway for developers into the broader Google ecosystem.

Additional context:

Google Cloud - see slide

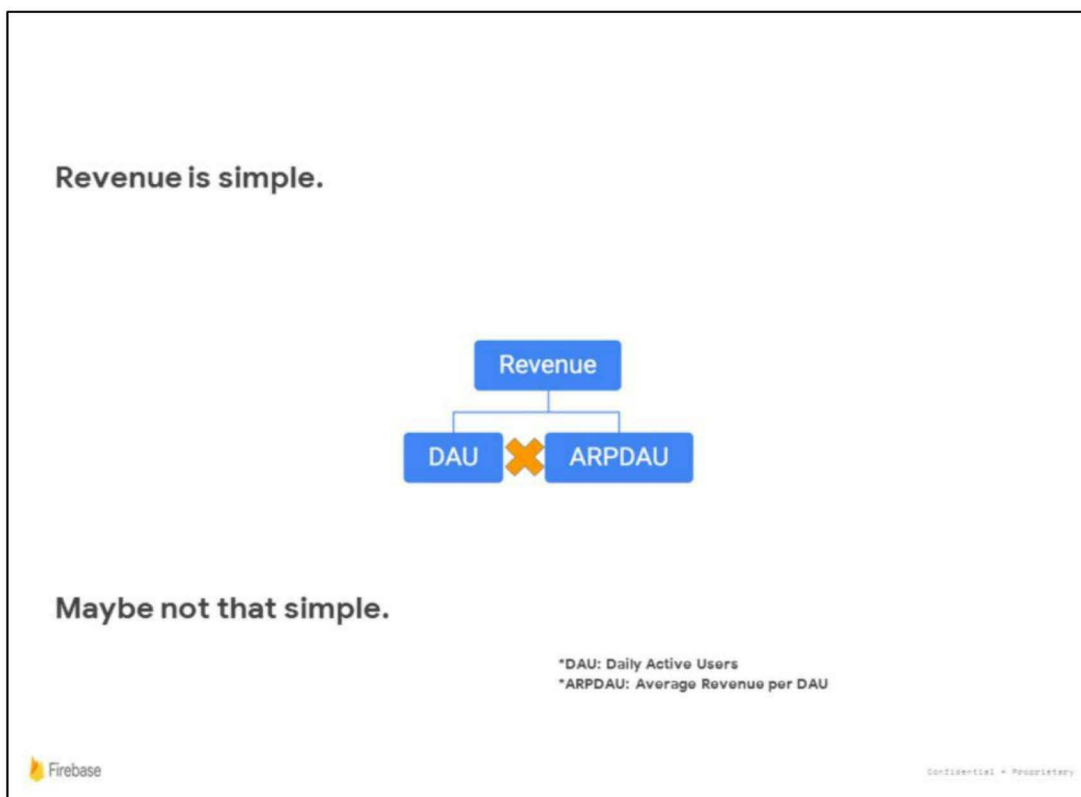
Google Ads - see link

# How does AdMob and Firebase work together?



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Speaker: Amy



**Speaker notes:**

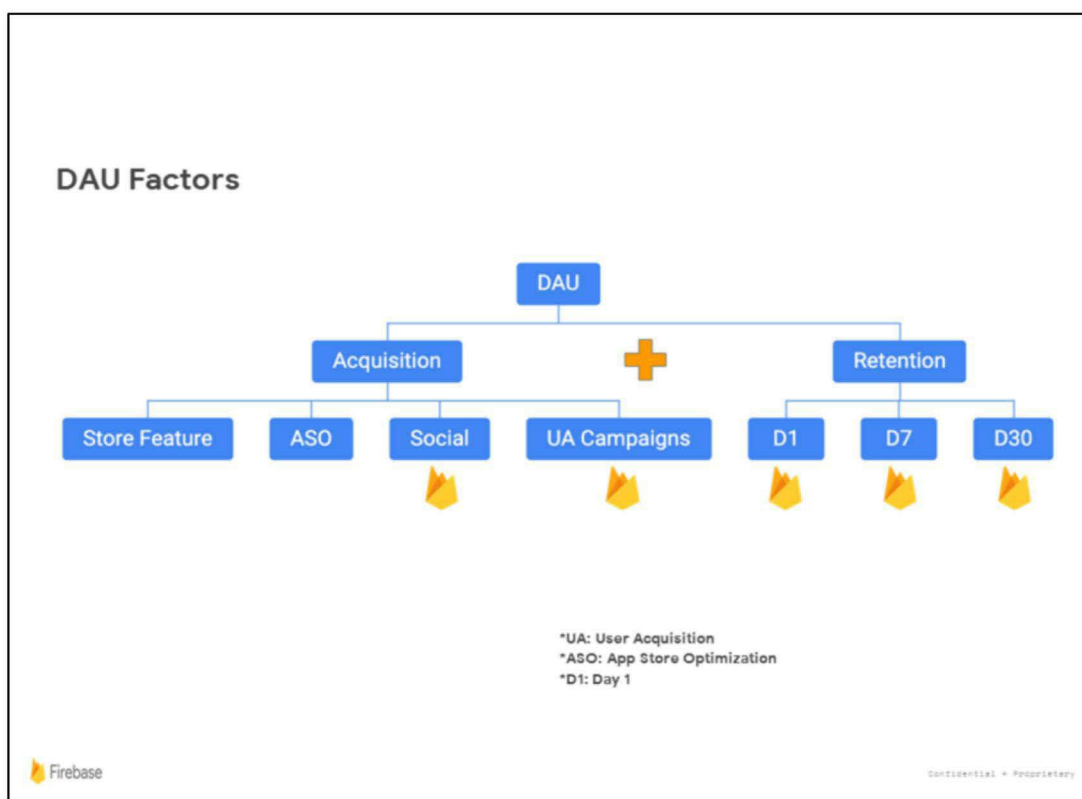
**Firestore a comprehensive and well integrated app development platform for the entire app lifecycle.**

**Key concepts:**

**Firestore for the entire app lifecycle**

**Additional context:**

**N/A**



**Speaker notes:**

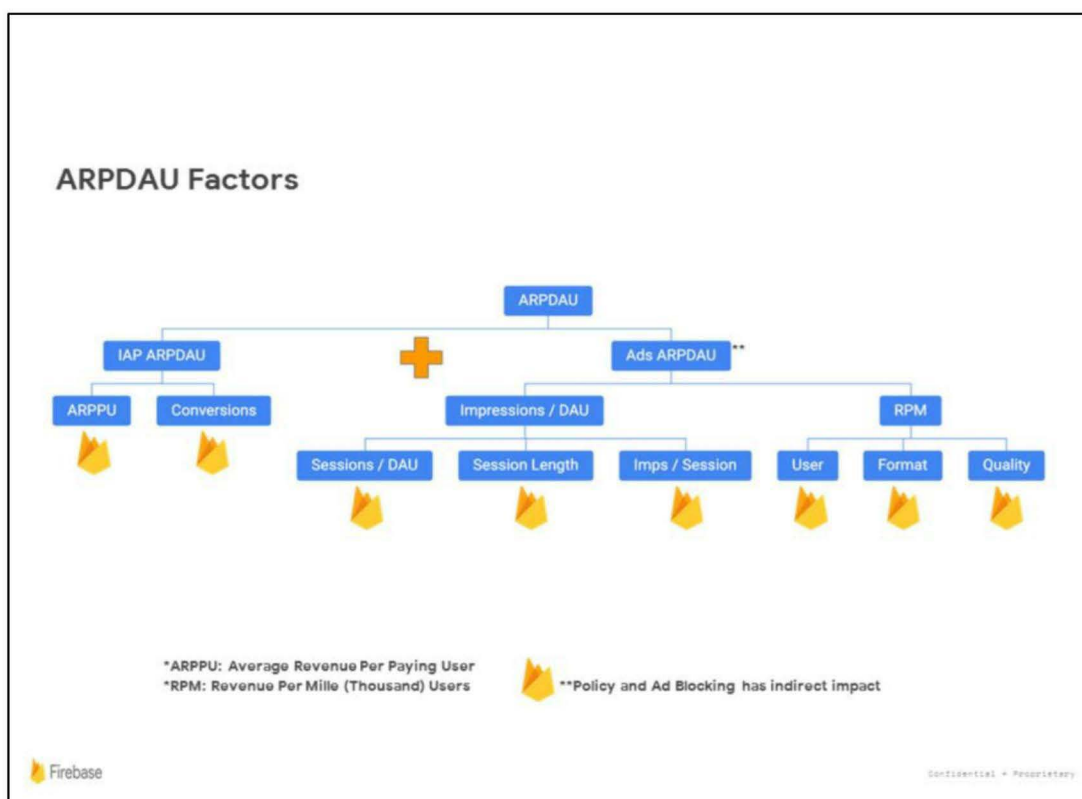
**Firestore a comprehensive and well integrated app development platform for the entire app lifecycle.**

**Key concepts:**

**Firestore for the entire app lifecycle**

**Additional context:**

**N/A**



**Speaker notes:**

Firestore a comprehensive and well integrated app development platform for the entire app lifecycle.

**Key concepts:**

Firestore for the entire app lifecycle

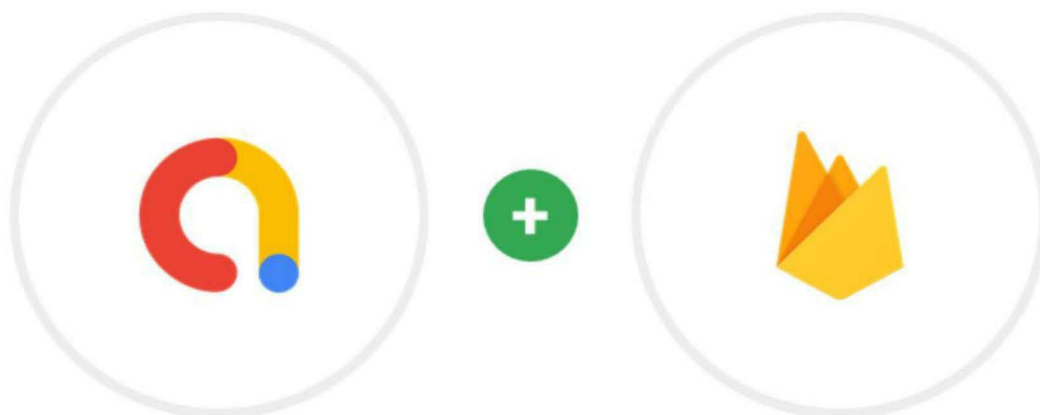
**Additional context:**

N/A

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# Introducing the AdMob+Firebase Integration

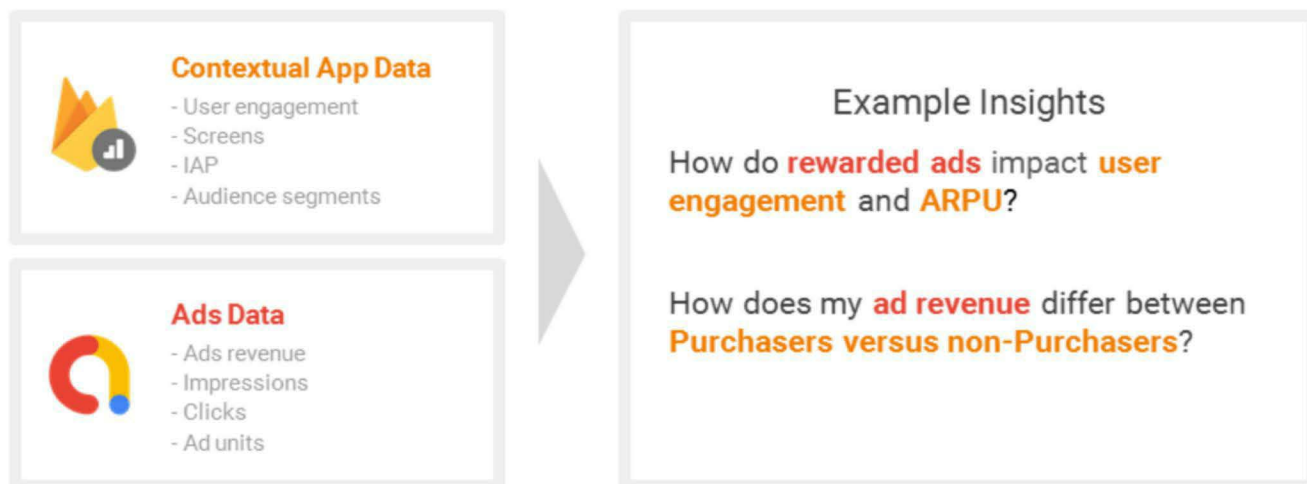
Measure the impact of advertising on user behavior and optimize your ad performance with a fully automatic measurement solution for app monetization.



Google

Speaker: Amy

## Joining data unlocks unprecedented insight...



Speaker: Amy

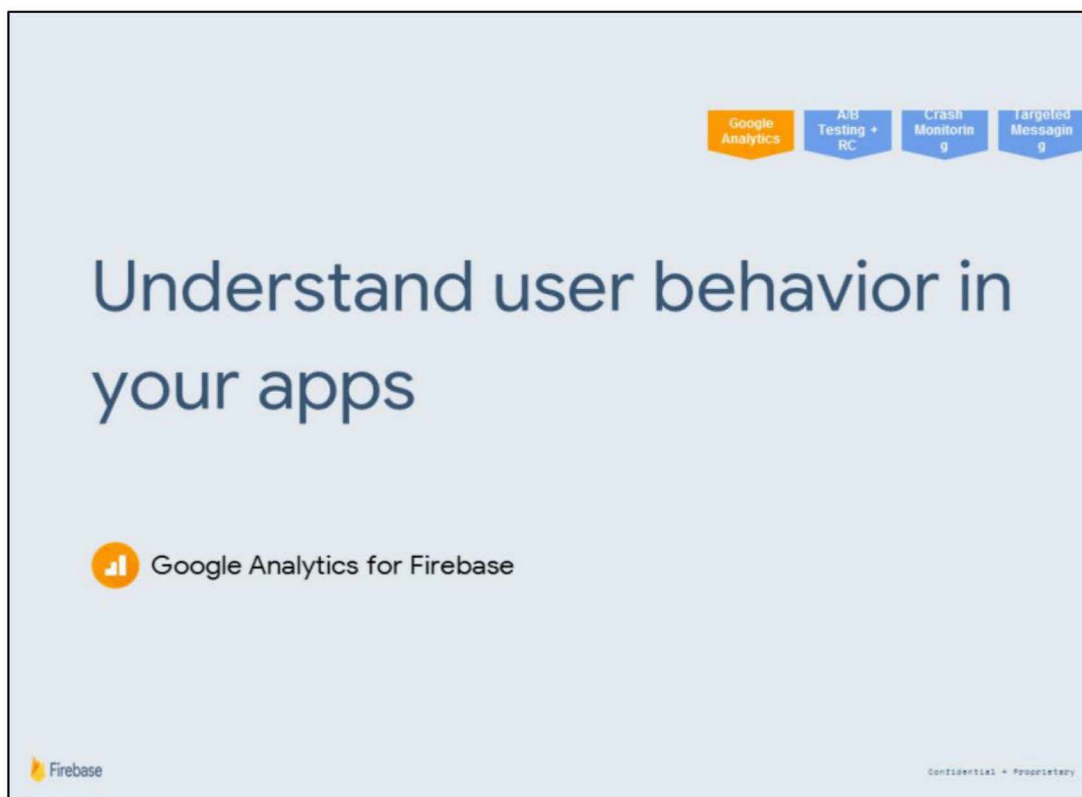
## Firebase helps drive smarter monetization for AdMob Publishers....

- Optimize ad implementation with A/B testing
- Understand how different screens and user properties drive higher eCPMs
- Tailor ads experiences for predicted purchasers and
- Carefully roll out and measure the impact of new ad experiences through Remote Config
- Boost retention and engagement with targeted messaging

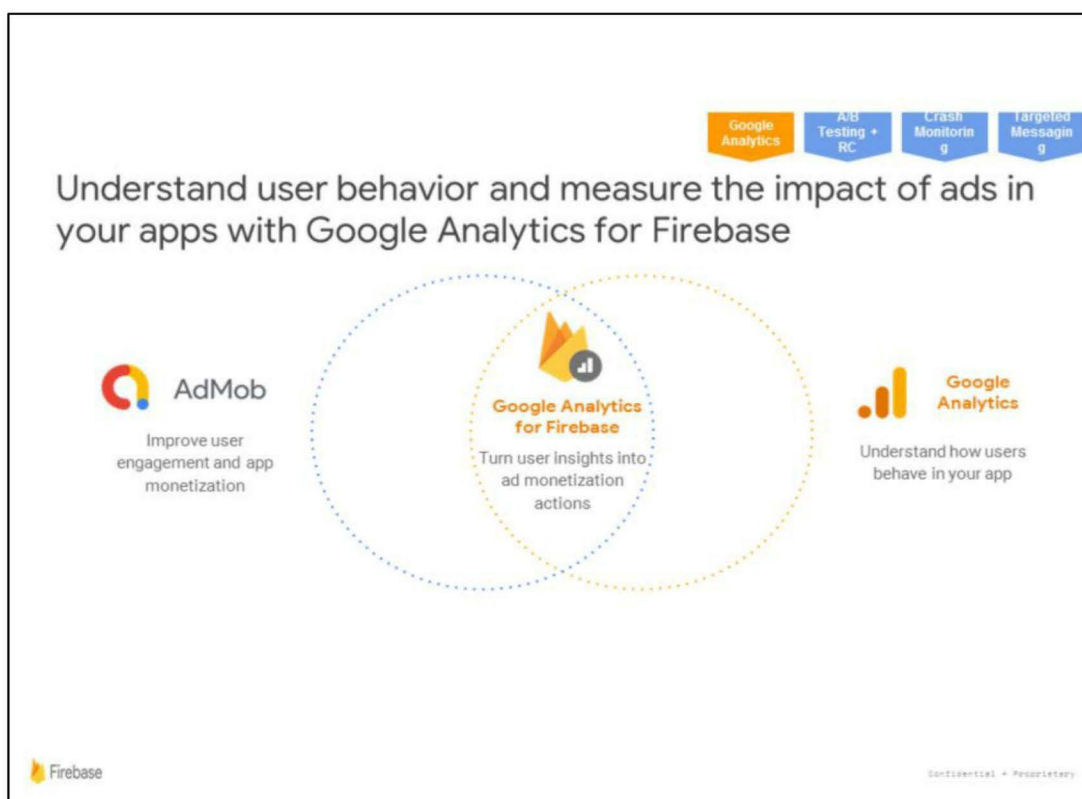
Google

Speaker: Amy Source

[REDACTED]




Next, we'll talk about the part of the Firebase suite that allows you to change your app's look and feel, tailor it to the user/user segment/certain audiences, without a letter of additional code required.



Speaker: Justyna

Firestore benefits drive targeted user engagement  
Drive targeted user engagement using GA4F audiences or by instrumenting custom events and conversions  
Predictive insights on customer behavior (events)  
Targeted push notifications & in-app messaging (audience)  
Targeted a/b testing & personalizations (audience)  
Crash monitoring

Firebase Analytics requires GA4F SDK to work, in order to do targeting  
FCM requires GA4F SDK to work, in order to do targeting  
Remote Config requires GA4F SDK to work, in order to do targeting  
Crashlytics SDK requires GA4F SDK to work, in order to XXX



## Google Analytics for Firebase

**What is it?**

Collect and analyze ad revenue and contextual app data to make data-driven decisions

- Understand user engagement, session duration, ad exposure, and more!
- View IAP + ad revenue to understand revenue and LTV for your users
- Monitor ad performance by screen in your apps

All functionality included in GA4F SDK

Free product

Google Analytics

A/B Testing + RC

Crash Monitoring


Targeted Messaging

**How will it help your apps business?**

Analyze user behavior and ad performance in your app to make decisions to drive revenue and user engagement

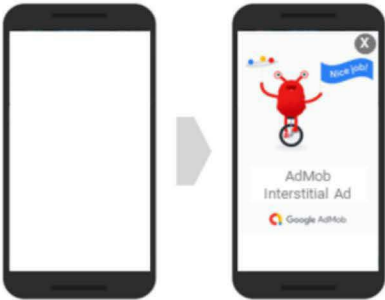
Examples of key metrics tracked by Google Analytics for Firebase:


- Ad revenue: ad\_impression and ad\_click
- IAP: in\_app\_purchase
- Retention: first\_open
- User experience: user\_engagement


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Google Analytics
A/B Testing + RC
Crash Monitoring
Targeted Messaging

**Key use case**  
 Monitor performance of ads in different ad units and screens in your app



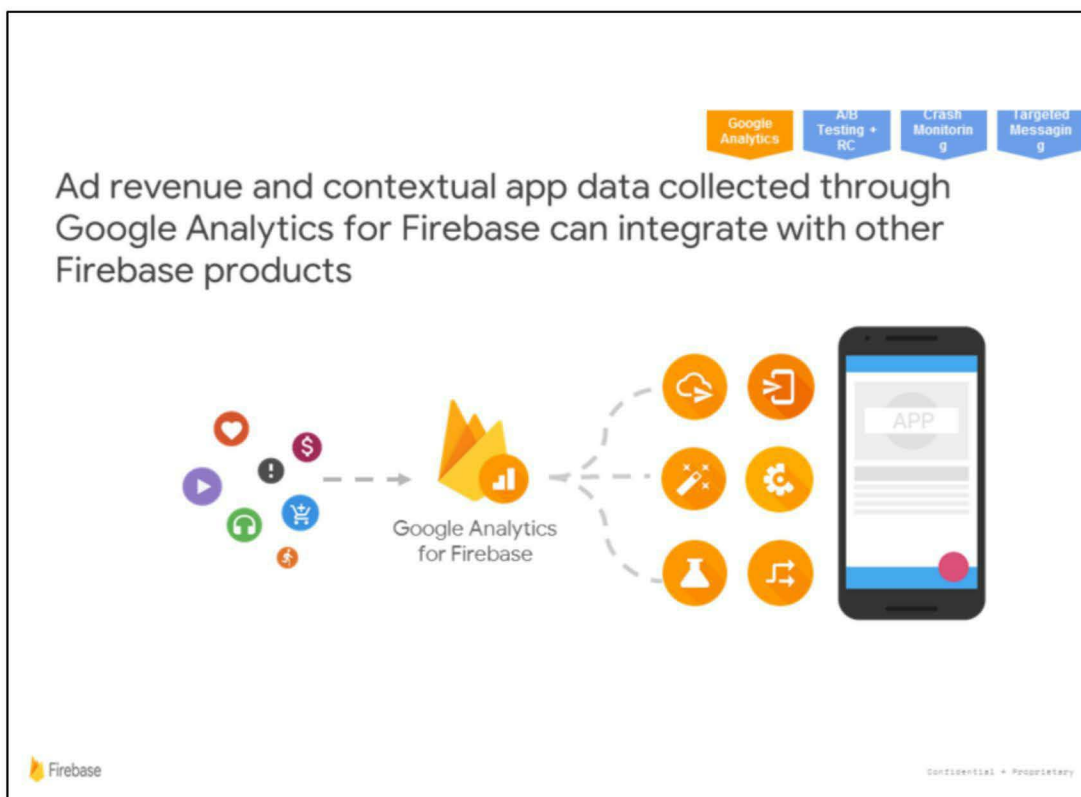

Google Analytics

- Google Analytics for Firebase automatically collects ad\_impression, ad\_click, and adunit\_exposure
- View the ad revenue and user engagement data in the Google Analytics for Firebase Dashboard
- Compare impressions, clicks, revenue, and ad unit exposure across different screens and ad units


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**Remote Config** allows these changes to happen without requiring users to re-download the app or having to republish it to the app store.

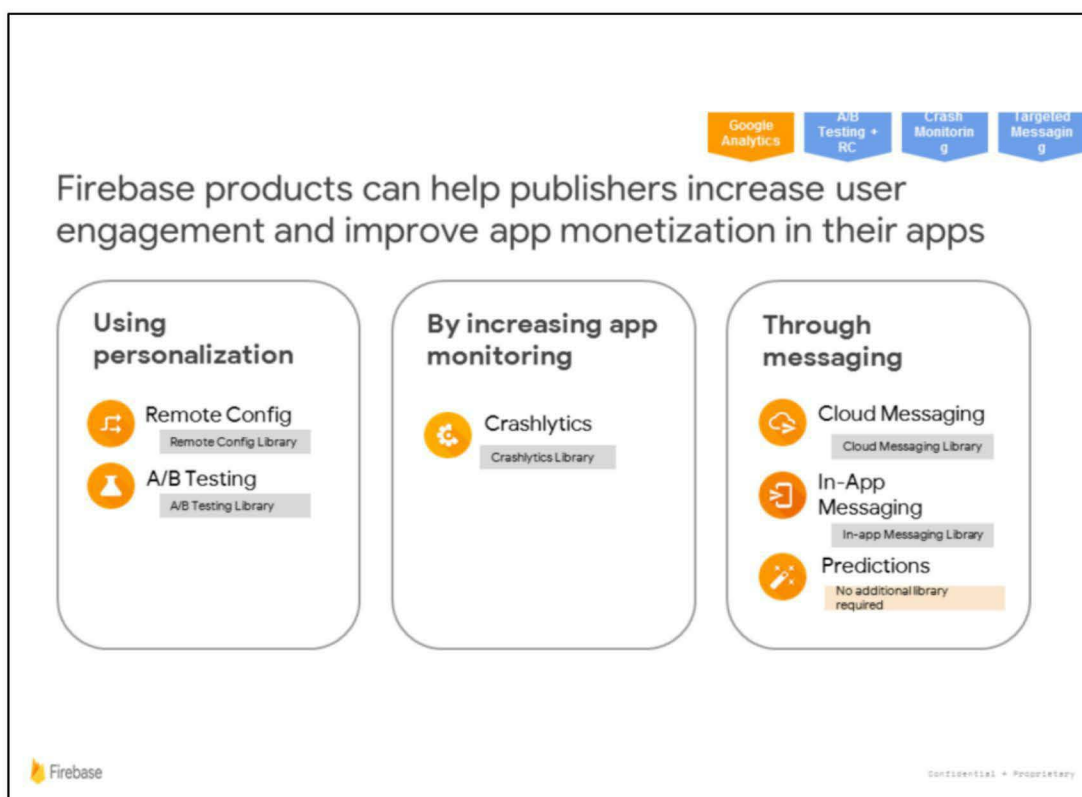
**A/B Testing** allows you to optimize app onboarding by automatically declaring experiment winners, saving you lots of time.



Speaker: Justyna

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 Drive targeted user engagement using GA4F audiences or by instrumenting custom events and conversions  
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 Crashlytics SDK requires GA4F SDK to work, in order to XXX



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 Remote Config requires GA4F SDK to work, in order to do targeting  
 Crashlytics SDK requires GA4F SDK to work, in order to XXX

The slide has a light blue background. At the top right, there are four small, overlapping banner-like icons: 'Google Analytics' (blue), 'A/B Testing + RC' (orange), 'Crash Monitoring' (blue), and 'Targeted Messaging' (blue). The main title 'Engage users through personalized look & feel' is centered in a large, dark blue font. Below the title, on the left, are two orange circular icons: one with a document and settings symbol, and another with a person icon. To the right of these icons are the labels 'Firebase Remote Config' and 'Firebase A/B Testing Beta' respectively. The Firebase logo is in the bottom left corner, and the text 'Confidential + Proprietary' is in the bottom right corner.

Engage users through  
personalized look & feel

Google Analytics A/B Testing + RC Crash Monitoring Targeted Messaging

Firebase Remote Config  
Firebase A/B Testing Beta

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Next, we'll talk about the part of the Firebase suite that allows you to change your app's look and feel, tailor it to the user/user segment/certain audiences, without a letter of additional code required.

**Google Analytics** **A/B Testing + RC** **Crash Monitoring** **Targeted Messaging**

## Firebase Remote Config

**What is it?**

Change behavior and appearance of an app without republishing the app or requiring users to download an app update

Additional Remote Config library required

Free product<sup>1</sup>

**How will it help your apps business?**

Customize content and features for each user to drive user engagement in the app and increase customer LTV

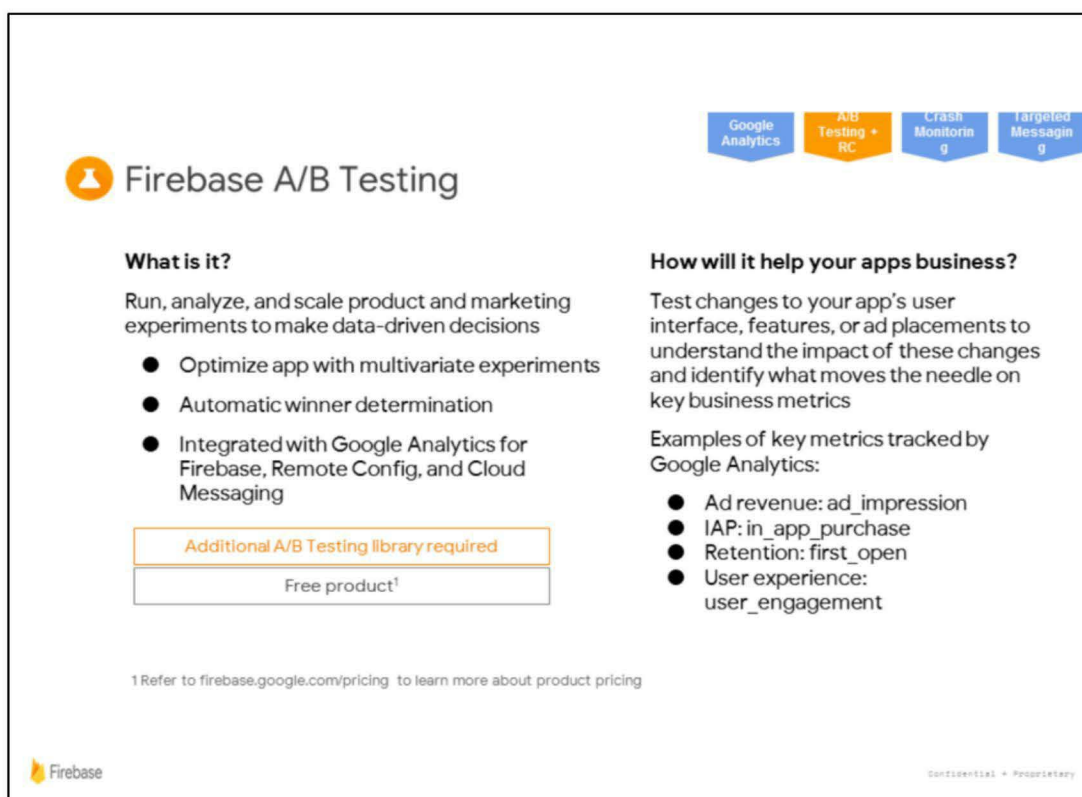
Leverage Google Analytics audiences to segment users. For example:

- Different ad logic for purchasers or non-purchasers
- Ad frequency based on retention
- Ad density based on user country

<sup>1</sup> Refer to [firebase.google.com/pricing](https://firebase.google.com/pricing) to learn more about product pricing

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- Remote Config is a product that lets you make changes to the behavior and appearance of your app remotely. Just like the product name.
- You can do things like make changes to the app's onboarding flow
- To use remote config requires installing a small library in addition to GA4F SDK
- Completely free product, even at scale



The slide is titled "Firebase A/B Testing" and features the Firebase logo. At the top right, there are four colored boxes: "Google Analytics" (blue), "A/B Testing + RC" (orange), "Crash Monitoring" (blue), and "Targeted Messaging" (blue). The main content is divided into two columns. The left column, titled "What is it?", describes the service as a tool to run, analyze, and scale product and marketing experiments to make data-driven decisions. It lists three bullet points: "Optimize app with multivariate experiments", "Automatic winner determination", and "Integrated with Google Analytics for Firebase, Remote Config, and Cloud Messaging". Below this, there are two stacked boxes: the top one says "Additional A/B Testing library required" and the bottom one says "Free product<sup>1</sup>". The right column, titled "How will it help your apps business?", explains that it helps test changes to the app's user interface, features, or ad placements to understand their impact on key business metrics. It also lists "Examples of key metrics tracked by Google Analytics:" followed by four bullet points: "Ad revenue: ad\_impression", "IAP: in\_app\_purchase", "Retention: first\_open", and "User experience: user\_engagement". At the bottom left is the Firebase logo, and at the bottom right is the text "Confidential + Proprietary". A footnote at the bottom center states: "1 Refer to firebase.google.com/pricing to learn more about product pricing".

**What is it?**

Run, analyze, and scale product and marketing experiments to make data-driven decisions

- Optimize app with multivariate experiments
- Automatic winner determination
- Integrated with Google Analytics for Firebase, Remote Config, and Cloud Messaging

Additional A/B Testing library required

Free product<sup>1</sup>

**How will it help your apps business?**

Test changes to your app's user interface, features, or ad placements to understand the impact of these changes and identify what moves the needle on key business metrics

Examples of key metrics tracked by Google Analytics:

- Ad revenue: ad\_impression
- IAP: in\_app\_purchase
- Retention: first\_open
- User experience: user\_engagement

<sup>1</sup> Refer to [firebase.google.com/pricing](https://firebase.google.com/pricing) to learn more about product pricing

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- Run multi variant experiments in your app to understand what moves the needle for business metrics
- A/B Tests leverage remote config to actually run their experiments
- To use ABT requires installing a small library in addition to GA4F SDK
- Free product, even as it scales

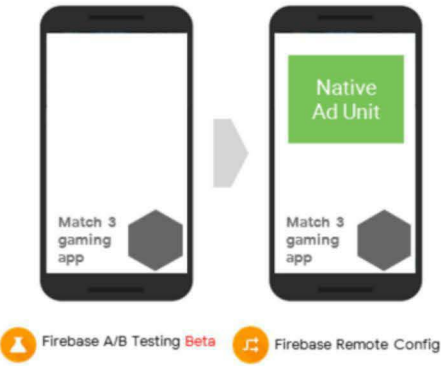
Google Analytics

A/B Testing + RC



Crash Monitoring


Targeted Messaging

**Key use case**  
Measure the impact of a new ad implementation on user engagement



- Create a new ad unit in AdMob
- Use Remote Config to control when the ad unit is shown
- Use A/B testing to target a subset of users to see the new ad unit
- Define KPIs, such as user engagement and uninstalls, to measure the impact of this placement
- Roll out the experiment and wait for results!

 Firebase A/B Testing Beta
  Firebase Remote Config


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**Remote Config** allows these changes to happen without requiring users to re-download the app or having to republish it to the app store.

**A/B Testing** allows you to optimize app onboarding by automatically declaring experiment winners, saving you lots of time.